(Simulated) Impact of the Proposal to Introduce Fee Reductions for Universities on PCT Fee Income

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Geneva
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Introduction

■ Study *"Estimating a PCT Fee Elasticity"* presented at the 7th session of the Working Group, which provided a first ever estimate of the overall fee elasticity of PCT applications

■ Two Supplements to this Study explore the effects of possible fee reductions for universities originating in different country groups

The approach

Dependent variable:
0: Paris route
1: PCT route

$$pct_{ijt} = \begin{cases} 0 \text{ if } pct_{ijt}^* \leq 0 \\ 1 \text{ if } pct_{ijt}^* > 0 \end{cases}$$

Local currency PCT fee divided by Consumer Price Index (CPI)

Origin is PCT member

Origin & time fixed effects

Error term

$$pct_{ijt}^* = \alpha \ln f_{jt} + \beta \ln unemp_{jt} + \gamma \, mem_{jt} + \delta \, \Omega_i + \mu_j + \theta_t + \varphi \, mkt_{j(t-12)} + \varepsilon_{ijt}$$
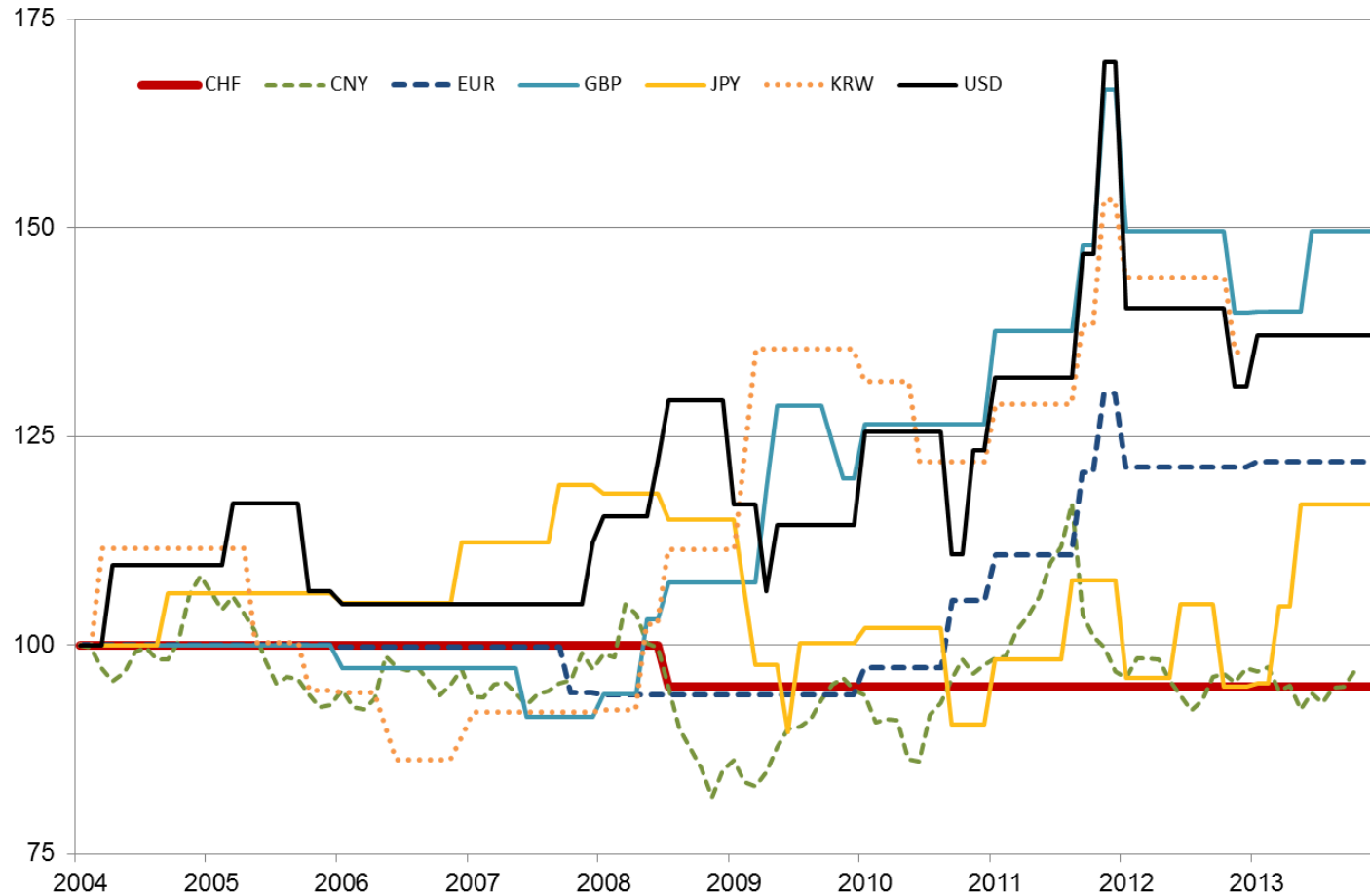
Unemployment rate

Family characteristics:
- size
- applicant type
- technology field

Moving average of PCT market share, 12-month lag

Historical fee variation

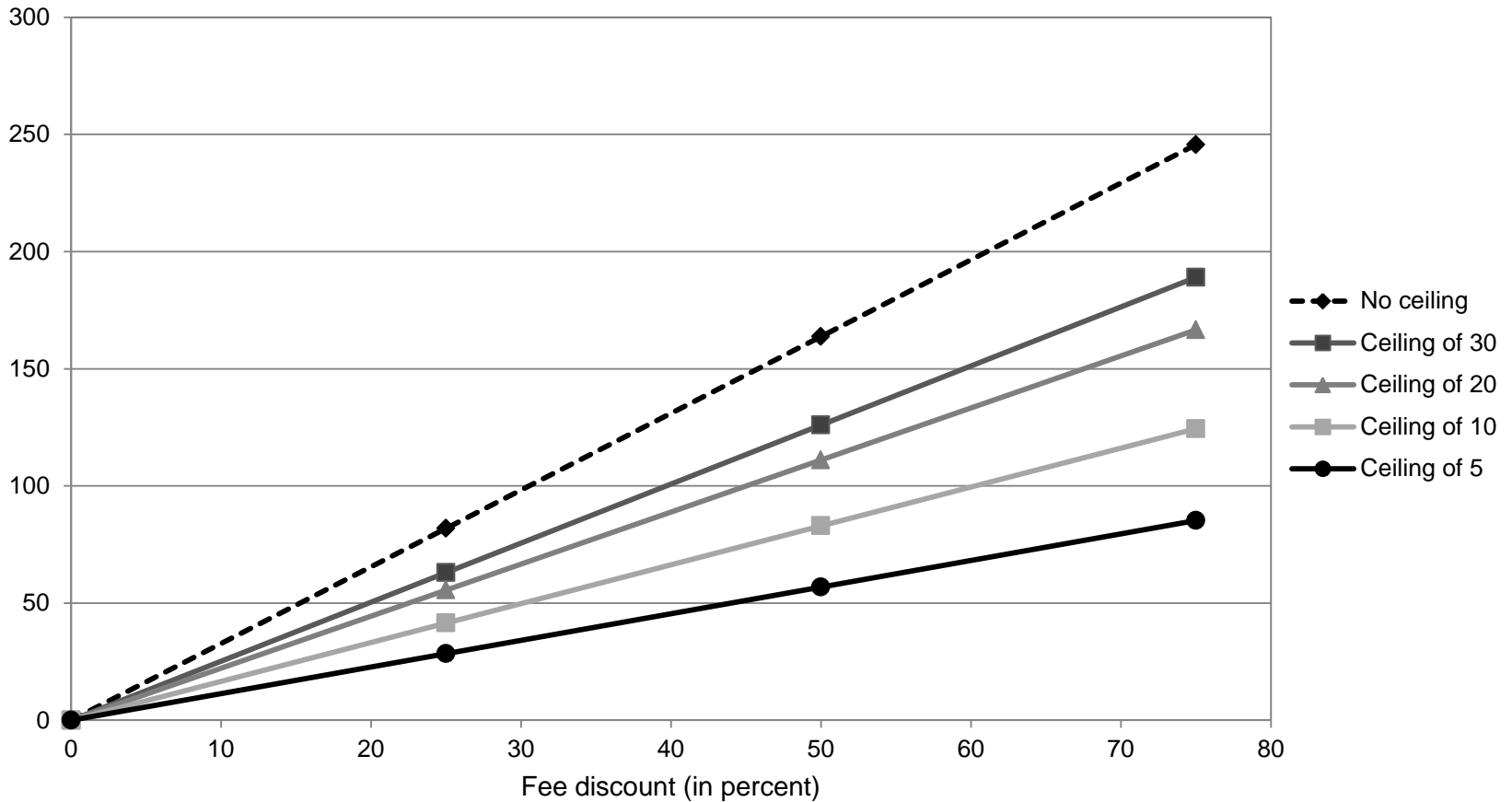International filing fee (index, 2004=100)

Market shares and elasticity estimates

	Full sample		Estimation sample		Implied elasticity
	#obs	PCT share	#obs	PCT share	
University (developed country)	24,754	0.865	20,730	0.861	-0.040
University (developing country)	3,609	0.675	453	0.620	-0.164
Other applicants	1,342,593	0.492	1,092,352	0.489	-0.021

Filing response – developed countries
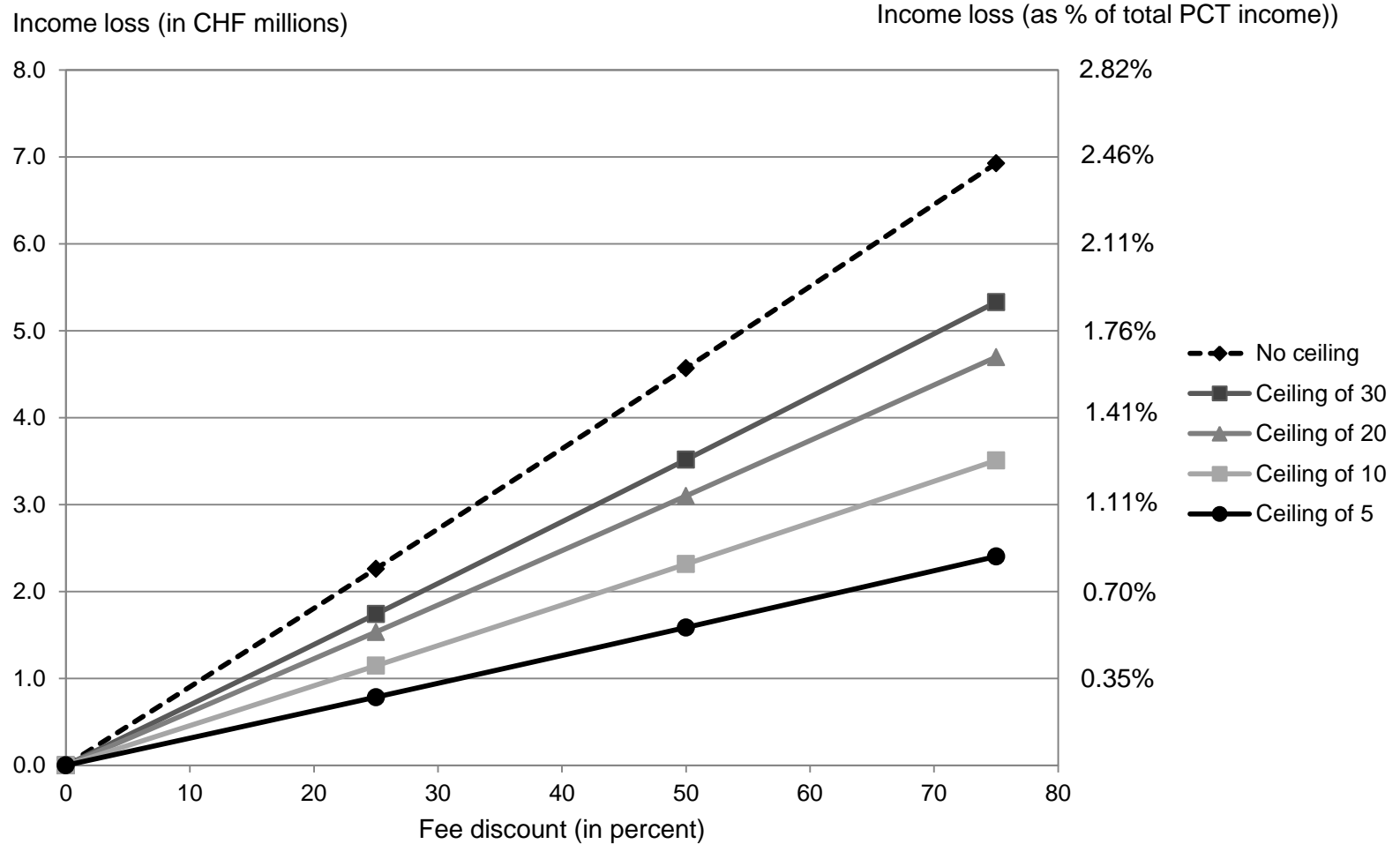

Number of additional filings

Fee discount (in percent)

- No ceiling
- Ceiling of 30
- Ceiling of 20
- Ceiling of 10
- Ceiling of 5

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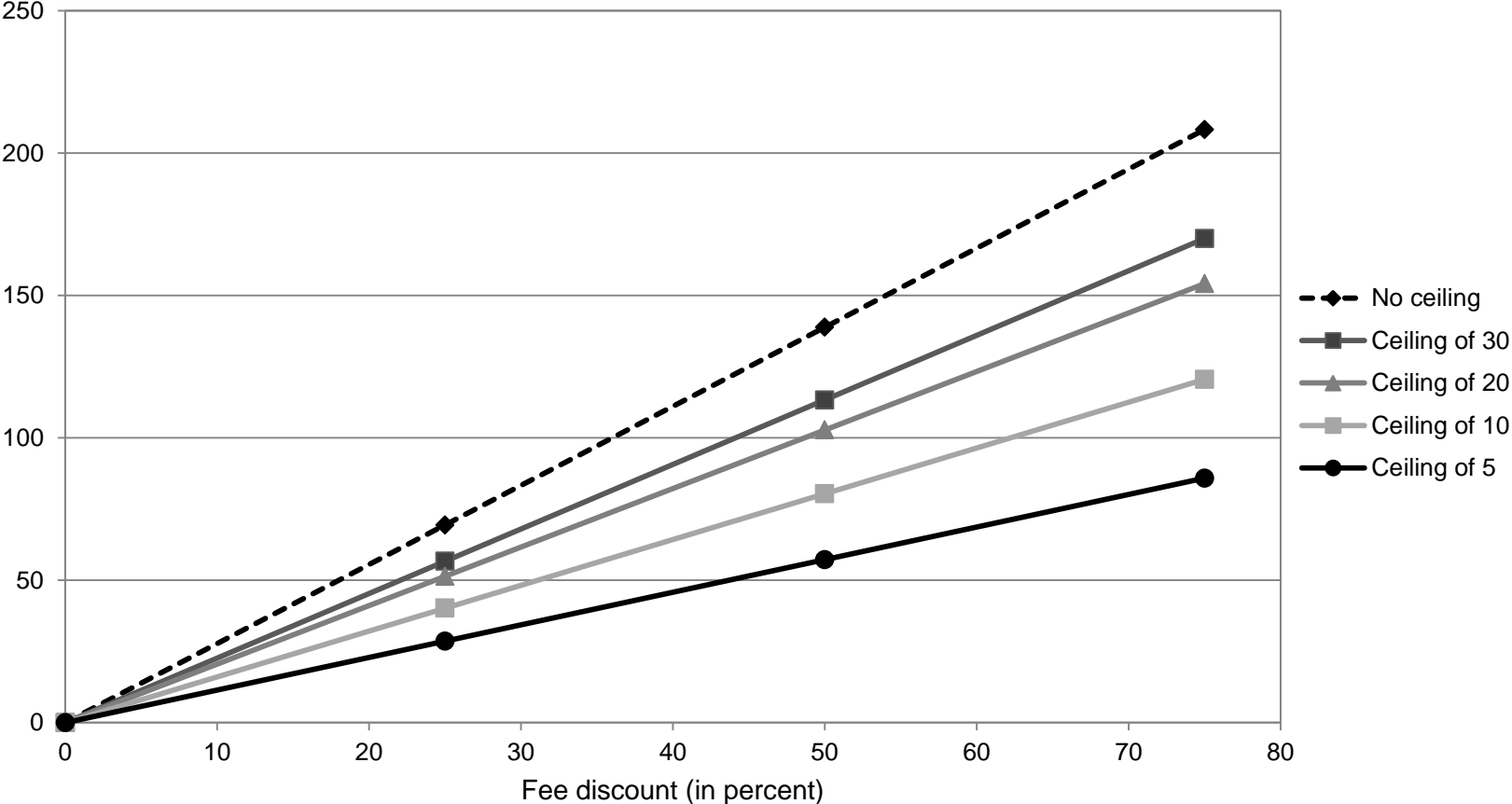
Income effect – developed countries

Income loss (in CHF millions)

Income loss (as % of total PCT income))

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Fee discount (in percent)

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Income effect – developing countries

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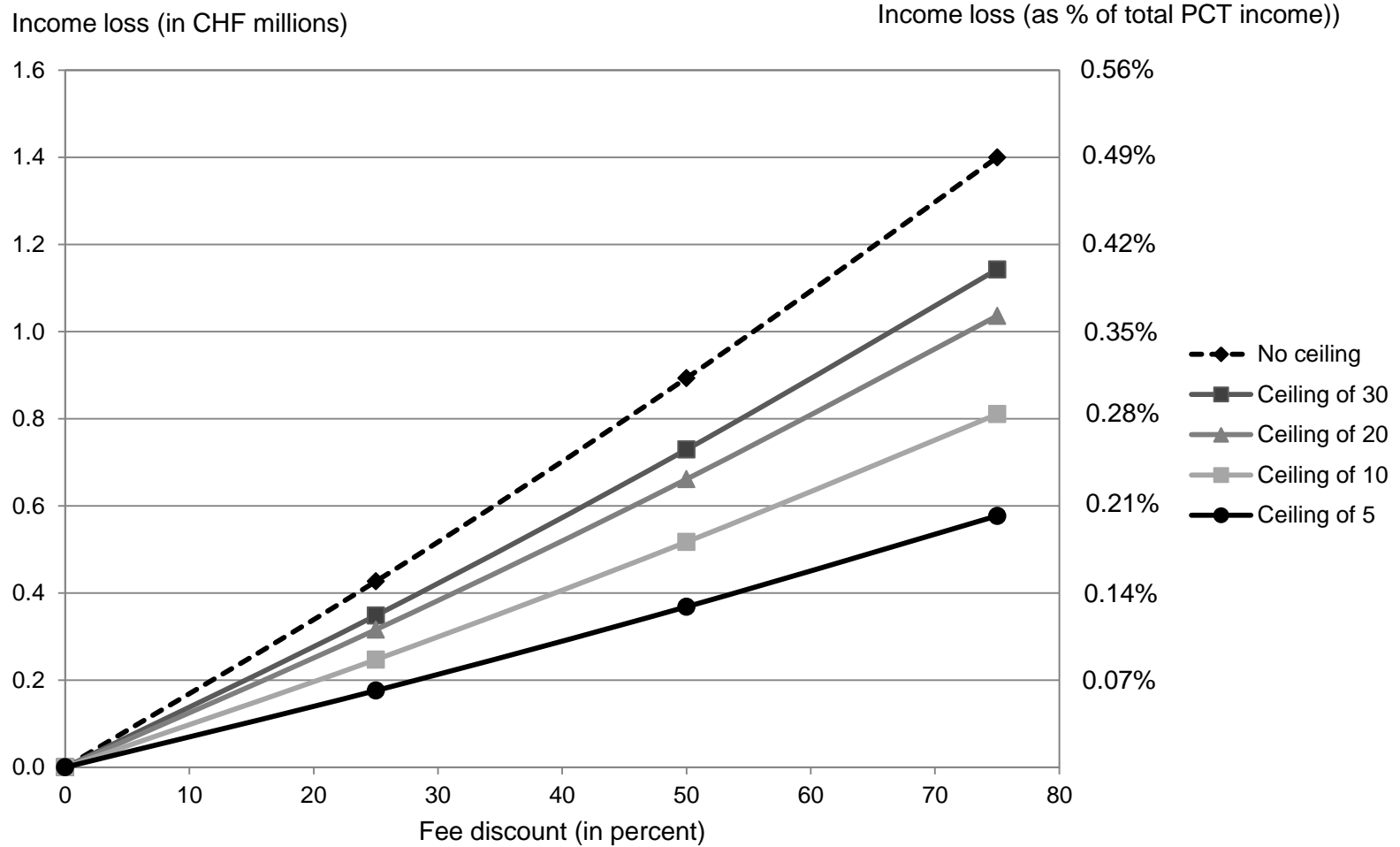
The conclusion

■ Developing country universities are more price sensitive than developed country universities

■ Eligibility ceilings work to soften the filing response and the implied income loss

■ Caveats:

➢ Only model PCT-Paris choice

➢ Simulations of large fee discount exceeds historical fee variation

➢ Assume uniform elasticities for universities of all sizes in developed/developing economies